M E M O R A N D U M

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SUBJECT: Operational Position Statement for the Week of May 22 - May 28, 2012

The U.S. Army Corps of Engineers (USACE) is responsible for managing Lake Okeechobee water levels and makes operational decisions about whether to retain water or release water based on their regulation schedule release guidance. The USACE makes this decision taking into account the best available science and data provided by its staff and a variety of partners, which includes the South Florida Water Management District (SFWMD).

The SFWMD team has discussed the system wide environmental conditions, the water supply conditions, and has evaluated the overall status of the water management system. Detailed reports are available at the SFWMD's Operational Planning internet page.

Recommendation to the USACE

Consistent with the Lake Okeechobee Adaptive Protocols release guidance, the SFWMD recommends that the USACE initiate a 10-day, 300 cfs average environmental water supply release at S-79. As of the morning of May 23rd, discharge rates of C-43 basin runoff were about 1200 cfs. Therefore, the SFWMD further recommends that the USACE wait to initiate this 10-day release until the S-79 flow rate falls below about 500 cfs. The intent of this recommendation is to maintain flow to the Caloosahatchee Estuary after basin runoff subsides to about 500 cfs.

Day	Discharge S-79 (cfs)
1	500
2	900
3	600
4	400
5	300
6	300
7	0
8	0
9	0
10	0
	Avg=300cfs

The SFWMD also recommends that the USACE continue their standard operation to allow runoff from the C-44 basin (S-308 to S-80) to backflow to Lake Okeechobee via S-308 rather than discharge to tide via S-80.

Weather and Climate

Rainfall during the past week totaled 2.42 inches district wide (through 7 am May 22nd). During the past 30 days district-wide rainfall has been 52% above average; however the region north of Lake Okeechobee remains 20-30% below average. About 2.3 inches of rain fell directly over the Lake during the past 7-days. The SFWMD precipitation outlook for the next ten days (May 22-31) is above average in the southern part of the district and average for the northern region, with moderate confidence. For the first half of the upcoming wet season, the CPC outlook shows equal chances for below-normal, normal, and above-normal rainfall.

Recent Operations History

The May 21, 2012 Lake Okeechobee stage (reported by the USACE on May 22nd) was 11.77 feet NGVD, 0.21 feet higher than 7-days ago. The Lake is 0.06 feet lower than it was a month ago and is 1.33 feet higher than it was a year ago. The current stage is 1.42 feet lower than the historical average for this date. The Lake stage remains in the Beneficial Use Sub-band, about 0.9 feet below the bottom of the Baseflow Sub-band and about 1.1 feet above the Water Shortage Management Band.

On May 18th the USACE completed the SFWMD-requested 3-day release at S-77, S-78 and S-79 to help prevent a potential algae bloom in the C-43 upstream of S-79. Rainfall on May 19th triggered reopening S-79 to discharge C-43 basin runoff. S-79 flow rates reached as high as 1900 cfs, but averaged roughly 800 cfs so far. Discharge of C43 basin runoff continues as of 10 am, May 23rd.

The LORS-2008 release guidance suggests no releases to the WCAs since such releases are not desirable due to relatively high stages in the WCAs. All WCA stages are above their respective regulation schedules. With the Lake O stage in the Beneficial Use sub-band, the LORS-2008 gives no guidance regarding releases at S-79 and S-80. The SFWMD's Adaptive Protocols provide the needed guidance for the appropriate release amounts.

Lake Okeechobee Adaptive Protocols Release Guidance Details

The Lake Okeechobee stage remains in the Beneficial Use sub-band and SFWMD staff continue to follow the Lake Okeechobee Adaptive Protocols (AP) to determine releases to the Caloosahatchee Estuary. The Adaptive Protocols were developed to provide guidance for both baseflow discharges and environmental water supply releases. The water supply balance achieved by following the protocol was evaluated by the Water Resources Advisory Commission and the SFWMD Governing Board, leading to board acceptance in September, 2010.

The following describes the release guidance per the Final Adaptive Protocols for Lake Okeechobee Operations (September 16, 2010). Each Tuesday the Coastal Ecosystem Section reviews the salinity conditions in the Caloosahatchee estuary and forecasts the predicted salinity for 14 days into the future at Val I75. The AP criterion for determining whether the estuary needs water is based on the predicted salinity at Val I75 being at least 5 psu within the next two weeks. According to the salinity criterion, the estuary currently needs freshwater inflow at S-79, supplemented from Lake Okeechobee as necessary.

The Tributary Hydrologic Condition (THC) has moved to the near normal classification (LORS-2008 classifications). The THC is based on the weekly Lake Okeechobee net inflow computation and the Palmer Index. The THC is estimated using the methodology described in Appendix K of the USACE's Water Control Plan for Lake Okeechobee and the EAA. On Monday of each week the LORS-2008 release guidance parameters, including the THC, are calculated by the SFWMD using the most-recent data. The 14-day average Lake Okeechobee Net Inflow was 1730 cfs (near normal) through May 20th and the Palmer Index on May 19th was -3.64 (dry). The THC is the wetter of these two parameters, thus it is classified as near normal.

The following conditions in the Adaptive Protocol Release Guidance indicate that releases at S-79 up to 300 cfs can be made, supplemented as needed with S-77 environmental water supply releases:

1. the Lake O stage is within the Beneficial Use subband,
2. the Caloosahatchee Estuary needs water per the forecast salinity at the I-75 bridge,
3. the chance of the dry season Lake stage falling below elevation 11.0 feet exceeds 50%
4. the THC classified as near normal

Correspondingly, the release guidance suggests “S-79 up to 300 cfs, S-77 environmental water supply release to supplement as needed”.

For additional information pertaining to operations history and past recommendations, refer to the archive of operational position statements at www.sfwmd.gov under the Operational Planning topic.